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states:(71) Applicant: **TORAY IND INC**(72) Inventor: **SAKAI KENJI
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MEMBRANE MODULE****(57) Abstract:**

PROBLEM TO BE SOLVED: To provide a hollow fiber membrane module whose hollow fiber membranes are prevented from damages due to deterioration of the membranes by installing a protective cylinder for covering the hollow fiber membrane bundle near the adhesive fixation part and preventing deposition of suspended solid in the protective cylinder.

SOLUTION: In this hollow fiber membrane module, a bundle 2 of a large number of hollow fiber membranes having an adhesive fixed part 3 in at least one end is fixed in an upper part of a housing 1 and the circumference of the hollow fiber membrane bundle 2 in the fixed end is covered with a protective cylinder 4 extended from the adhesive fixed part 3 and an air jetting hole 6 for air scrubbing is formed in a lower part of the housing 1 and an air discharge

port 7 is formed in the peripheral part of the adhesive fixed part 3 in the upper part of the housing. In such a hollow fiber membrane module, the cylindrical face of the protective cylinder 4 is made a closed face through which a fluid is impossible to pass in the region at least 10 mm from the adhesive fixed part 3 and an opening part 40 through which a fluid can freely pass is formed in a region of 10-60 mm from the adhesive fixed part 3.

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